## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/535.458
Source:	IFWO.
Date Processed by STIC:	7/5/06
•	——————————————————————————————————————

## ENTERED



**IFWO** 

RAW SEQUENCE LISTING DATE: 07/05/2006 PATENT APPLICATION: US/10/535,458 TIME: 08:51:01

Input Set : N:\SSLM\10535458.txt

Output Set: N:\CRF4\07052006\J535458.raw

```
3 <110> APPLICANT: McLachlan, Karen
              Gately, Dennis
      6 <120> TITLE OF INVENTION: NOVEL GENE TARGETS AND LIGANDS THAT BIND THERETO FOR
TREATMENT AND
              DIAGNOSIS OF COLON CARCINOMAS
      9 <130> FILE REFERENCE: 2159.0640005/EKS/J-H
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/535,458
C--> 12 <141> CURRENT FILING DATE: 2005-05-19
     14 <150> PRIOR APPLICATION NUMBER: US 60/427,564
    15 <151> PRIOR FILING DATE: 2002-11-20
    17 <160> NUMBER OF SEQ ID NOS: 73
    19 <170> SOFTWARE: PatentIn version 3.1
    21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 149
    23 <212> TYPE: DNA
    24 <213> ORGANISM: Homo sapiens
    26 <400> SEQUENCE: 1
    27 gatccaggag aggaaggagt ttcagaaggc aggagctggt cctctatgtc atgaaatgta
                                                                              60
    29 gagggtgagg ccaaggagga cctgagagaa ggtaattaga tttggtgttt acaggctggt
                                                                              120
    31 ccctgtggcc agccacccca cccacttta
                                                                              149
    34 <210> SEQ ID NO: 2
    35 <211> LENGTH: 679
    36 <212> TYPE: DNA
    37 <213> ORGANISM: Homo sapiens
    39 <400> SEQUENCE: 2
    40 tgaggaaact gtggcttaga ggaaaaggtc attagttcat tttgggattt gttgattttc
                                                                               60
    42 agatgtttga gatgttgagg atggattgtc cagcaggcta ttaagatgtg gtgaaggcta
                                                                              120
    44 gaaatgttga tttaggaggt attgccttcg agaagataaa ggaggagaag aggagagcat
    46 catgcaaget agagaagaga aagaagaaaa gtattetggg gaatgtetee tttgggagea
                                                                              240
    48 gaaagaagac tetgaeggag cageeateea ggaagtggaa tgagateeag gagaggaagg
                                                                              300
    50 agtttcagaa ggcaggaget ggtcctctat gtcatgaaat gtagagggtg aggccaagga
                                                                              360
    52 ggacctgaga gaaggtaatt agatttggtg tttacaggct ggtccctgtg gccagccacc
                                                                              420
    54 ccacccactt taaaatattt actctacaaa tgttaatgtg tgaagagttg catgccagaa
                                                                              480
    56 tatttatggc atcagtgttg gtggatacag aacattggga aacaacccat taatagcaga
                                                                              540
    58 atggtaaatc tggccagtga atagtatagc tttttaaaaag gaggctgatg tctgaattca
                                                                              600
    60 ctttcaaagt tgttcacaat gtattgctaa aatacaaaaa tgttgcagaa ccatatgtat
                                                                              660
    62 gagagaaacc cctttttct
                                                                              679
    65 <210> SEQ ID NO: 3
    66 <211> LENGTH: 155
    67 <212> TYPE: DNA
    68 <213> ORGANISM: Homo sapiens
    70 <400> SEQUENCE: 3
    71 gatececatg gtatgettga atetgeteee tgaactteet geeagtgeet eeeegtacee
                                                                               60
    73 caaaacaatg tcaccatggt taccacctac ccagaagact gttccctcct cccaagaccc
```

120

Input Set : N:\SSLM\10535458.txt

```
75 ttgtctgcag tggtgctcct gcaggctgcc cgtta
                                                                         155
78 <210> SEQ ID NO: 4
79 <211> LENGTH: 1795
80 <212> TYPE: DNA
81 <213> ORGANISM: Homo sapiens
83 <400> SEQUENCE: 4
84 agtgtggtga tggttgtctt cgacaatgag aaggtcccag tagagcagct gcgcttctgg
                                                                          60
86 aagcactggc attcccggca acccactgcc aagcagcggg tcattgacqt qqctqactqc
                                                                         120
88 aaagaaaact tcaacactgt ggagcacatt gaggaggtgg cctataatgc actgtccttt
                                                                         180
90 gtgtggaacg tgaatgaaga ggccaaggtg ttcatcggcg taaactgtct gagcacagac
                                                                         240
92 ttttcctcac aaaagggggt gaagggtgtc cccctgaacc tgcagattga cacctatgac
                                                                         300
94 tgtggcttgg gcactgagcg cctggtacac cgtgctgtct gccaqatcaa qatcttctgt
                                                                         360
96 gacaagggag ctgagaggaa gatgcgcgat gacgagcgga agcagttccg gaggaaggtc
                                                                         420
98 aagtgccctg actccagcaa cagtggcgtc aagggctgcc tgctgtcggg cttcaggggc
                                                                         480
100 aatgagacga cctaccttcg gccagagact gacctggaga cgccacccgt gctgttcatc
                                                                          540
102 cccaatgtgc acttctccag cctgcagcgg tctggagggg cagccccctc ggcaggaccc
                                                                          600
104 agcageteca acaggetgee tetgaagegt acetgetege cetteactga ggagtttgag
                                                                          660
106 cctctgccct ccaagcaggc caaggaaggc gaccttcaga gagttctgct gtatgtgcgg
                                                                          720
108 agggagactg aggaggtgtt tgacgcgctc atgttgaaga ccccagacct gaaggggctg
                                                                          780
110 aggaatgcga tctctqaqaa gtatqqqttc cctqaaqaqa acatttacaa aqtctacaaq
                                                                          840
112 aaatgcaagc gaggaatctt agtcaacatg gacaacaaca tcattcagca ttacagcaac
                                                                          900
114 cacgtcgcct tcctgctgga catgggggag ctggacggca aaattcagat catccttaag
                                                                          960
116 gagetgtaag geetetegag eatecaaace eteaegacet geaaggggee ageagggaeg
                                                                         1020
118 tggccccacg ccacacacaa cctctccaca tgcctcagcg ctgttacttg aatgccttcc
                                                                         1080
120 ctgagggaag aggcccttga gtcacagacc cacagacgtc agggccaggg agagacctag
                                                                         1140
122 ggggtcccct ggcctggatc cccatggtat gcttgaatct gctccctgaa cttcctgcca
                                                                         1200
124 gtgcctcccc gtaccccaaa acaatgtcac catggttacc acctacccag aagactgttc
                                                                         1260
126 octootcoca agaccottgt otgoagtggt gotootgcag gotgoocgtt aagatggtgg
128 eggeacaege tecetecege ageaceaege eagetggtge ggeeceeaet etetgtette
                                                                         1380
130 cttcaacttc agacaaagga tttctcaacc tttqgtcaqt taacttqaaa actcttqatt
                                                                         1440
132 ttcagtgcaa atgactttta aaagacacta tattggagtc tctttctcag acttcctcag
                                                                         1500
134 cgcaggatgt aaatagcact aacgatcgac tggaacaaag tgaccqctqt qtaaaactac
                                                                         1560
136 tgccttgcca ctcactgttg tatacatttc ttatttacga ttttcatttg ttatatatat
                                                                         1620
138 atataaatat actgtatata tatgcaacat tttatatttt tcatggatat qtttttatca
                                                                         1680
140 tttcaaaaaa tgtgtatttc acatttcttg gacttttttt agctgttatt cagtgatgca
                                                                         1740
142 ttttgtatac tcacgtggta tttagtaata aaaatctatc tatgtattac qtcac
                                                                         1795
145 <210> SEQ ID NO: 5
146 <211> LENGTH: 322
147 <212> TYPE: PRT
148 <213> ORGANISM: Homo sapiens
150 <400> SEQUENCE: 5
152 Ser Val Val Met Val Val Phe Asp Asn Glu Lys Val Pro Val Glu Gln
153 1
                    5
156 Leu Arg Phe Trp Lys His Trp His Ser Arg Gln Pro Thr Ala Lys Gln
157
                                    25
160 Arg Val Ile Asp Val Ala Asp Cys Lys Glu Asn Phe Asn Thr Val Glu
164 His Ile Glu Glu Val Ala Tyr Asn Ala Leu Ser Phe Val Trp Asn Val
165
                            55
```

Input Set : N:\SSLM\10535458.txt

		Glu	Glu	Ala	Lys		Phe	Ile	Gly	Val	Asn	Cys	Leu	Ser	Thr	Asp	
169						70					75					80	
172	Phe	Ser	Ser	Gln		Gly	Val	Lys	Gly	Val	Pro	Leu	Asn	Leu	Gln	Ile	
173					85					90					95		
176	Asp	Thr	Tyr	Asp	Cys	Gly	Leu	Gly	Thr	Glu	Arg	Leu	Val	His	Arg	Ala	
177				100					105					110			
180	Val	Cys	Gln	Ile	Lys	Ile	Phe	Cys	Asp	Lys	Gly	Ala	Glu	Arg	Lys	Met	
181			115					120					125				
184	Arg	Asp	Asp	Glu	Arg	Lys	${\tt Gln}$	Phe	Arg	Arg	Lys	Val	Lys	Cys	Pro	Asp	
185		130					135					140					
188	Ser	Ser	Asn	Ser	Gly	Val	Lys	Gly	Cys	Leu	Leu	Ser	Gly	Phe	Arg	Gly	
189	145					150					155					160	
192	Asn	$\operatorname{Glu}$	Thr	Thr	Tyr	Leu	Arg	Pro	Glu	Thr	Asp	Leu	Glu	Thr	Pro	Pro	
193					165					170	_				175		
196	۷al	Leu	Phe	Ile	Pro	Asn	Val	His	Phe	Ser	Ser	Leu	Gln	Arg	Ser	Gly	
197				180					185					190		-	
200	Gly	Ala	Ala	Pro	Ser	Ala	Gly	Pro	Ser	Ser	Ser	Asn	Arq	Leu	Pro	Leu	
201	•		195				•	200					205				
204	Lys	Arq	Thr	Cys	Ser	Pro	Phe	Thr	Glu	Glu	Phe	Glu	Pro	Leu	Pro	Ser	
205	•	210		-			215					220					
208	Lys	Gln	Ala	Lys	Glu	Gly	Asp	Leu	Gln	Arq	Val	Leu	Leu	Tyr	Val	Arq	
	225			•		230	-				235			•		240	
212	Arq	Glu	Thr	Glu	Glu	Val	Phe	qaA	Ala	Leu	Met	Leu	Lys	Thr	Pro	Asp	
213	_				245			-		250			•		255	-	
216	Leu	Lys	Glv	Leu	Arq	Asn	Ala	Ile	Ser	Glu	Lvs	Tvr	Glv	Phe	Pro	Glu	
217		4	- 4	260					265				- 4	270			
220	Glu	Asn	Ile		Lys	Val	Tyr	Lvs	Lvs	Cvs	Lvs	Ara	Glv	Ile	Leu	Val	
221			275	-	-		-	280	_	_	4		285				
224	Asn	Met	qaA	Asn	Asn	Ile	Ile	Gln	His	Tyr	Ser	Asn	His	Val	Ala	Phe	
225		290	-				295			-		300					
228	Leu	Leu	qaA	Met	Gly	Glu	Leu	qaA	Gly	Lvs	Ile	Gln	Ile	Ile	Leu	Lvs	
	305		-		•	310		-	•	•	315					320	
	Glu	Leu															
			EO II	ONO:	: 6												
				I: 17													
	<212																
				ISM:	Homo	sar	oiens	3									
				ICE:				-									
						a a	atto	actt	. ccc	cato	tat	gaaa	agagg	rag t	acto	gatgtt	60
												-			-	agaaa	120
																geggee	180
																	240
		coctotgtot coaggigtic aloggogiaa actgiotgag cacagactit tootcacaaa										300					
		agggggtgaa gggtgteece etgaacetge agattgaeae etatgaetgt ggettgggea etgageet ggtaeaeegt getgtetgee agateaagat ettetgtgae aagggagetg									360						
												420					
		agaggaagat gegegatgae gageggaage agtteeggag gaaggteaag tgeeetgaet cageaaaa tggegteaag ggetgeetg									480						
																gcact	540
																caaca	600
																ctcca	660
202	gget	.gcct	ي	jaayt	grac	یں دی	juudg	juuul		actyc	iyya	guu	-yayı		Lyce	cccca	880

Input Set : N:\SSLM\10535458.txt

																ctgagg	720	
		gtttga cgcgctcatg ttgaagaccc												780				
				tgggttccct gaagagaaca					_			_		_		840		
				t caacatggac aacaacatca									900					
		ggacat gggggagctg gacggcaaaa									ccttaaggag ctgtaaggcc					960		
274	tct	ctcgagcat ccaaaccctc acgacctgca					a ag	gggc	cagc	agggacgtgg ccccacgcca					1020			
276	cac	acaa	caacct ctccacatgc ctcagcgctg				g tt	actt	gaat	gcc	1080							
278	CCC	ttga	gtc .	acaga	accca	ac a	gacgi	tcag	g gc	cagg	gaga	gac	1140					
280	ctg	gatc	ccc .	atggi	tatg	ct t	gaat	ctgct	t cc	ctga	actt	cct	1200					
282	CCC	caaa	aca .	atgt	cacca	at g	gtta	ccac	c ta	ccca	gaag	act	gttc	cct	cctc	ccaaga	1260	
284	ccc	ttgt	ctg	cagt	ggtg	ct c	ctgc	aggct	t gc	ccgt	taag	atg	1320					
286	ctc	ccgc	agc a	acca	cgcca	ag ci	tggt	gcgg	C CC	ccccactctc			tgtcttcctt caacttcaga					
288	caa	aggai	ttt	ctca	accti	tt g	gtca	gttaa	a ct	tgaaa	aact	ctt	1440					
290	caaaggattt ctcaaccttt ggtcagtta acttttaaaa gacactatat tggagtctc							tctc	t tt	ctca	gact	tcc	1500					
292	tagcactaac gatcgactgg aacaaagtga c								a cc	gctg	tgta	aaa	ctac	tgc	cttq	ccactc	1560	
																catact	1620	
	-	_					-	_		-	_						1680	
		gtatatatat gcaacatttt atatttttca tggatatgtt tttatcattt caaaaaatgt gtatttcaca tttcttggac tttttttagc tgttattcaq tgatqcattt tgtatactca										1740						
	_	cgtggtattt agtaataaaa atctatctat gtattacgtc ac									1782							
	<210> SEQ ID NO: 7																	
				H: 19														
	305 <212> TYPE: PRT 306 <213> ORGANISM: Homo sapiens																	
	308 <400> SEQUENCE: 7																	
			-			Ara	Lvs	Gln	Phe	Ara	Ara	Lvs	Val	Lvs	Cys	Pro		
311		5		E	5	3	-1-			10	5	-1-		-1-	15			
		Ser	Ser	Asn	Ser	Glv	Val	Lvs	Glv		Leu	Leu	Ser	Glv	Phe	Ara		
315				20		1		-1-	25	-1-				30		5		
	Glv	Asn	Glu		Thr	Tvr	Leu	Ara		Glu	Thr	Asp	Leu		Thr	Pro		
319	1		35			-1-		40		<b></b> -			45					
	Pro	Val		Phe	Ile	Pro	Asn		His	Phe	Ser	Ser		Gln	Arg	Ser		
323		50					55					60		<b></b>	9			
	Glv		Ala	Ala	Pro	Ser		Glv	Pro	Ser	Ser		Asn	Ara	Leu	Pro		
327		<b>U</b> -1				70		017		501	75	001	11011		Lea	80		
		Lvs	Ara	Thr	Cvs		Pro	Phe	Thr	Glu		Phe	Glu	Pro	Leu			
331		_,,			85	501				90	014	1110	OIU	110	95	110		
	Ser	Lvc	Gln	Δla		Glu	Glv	Aen	T.e.11		Δra	Va 1	T.e.11	T.011	Tyr	Val		
335	Jer	цуз	GIII	100	цуз	Giu	Gry	тор	105	GIII	Arg	Val	пеи	110	ıyı	vai		
	Ara	Ara	Glu		Glu	Glu	172 l	Dha		ת 1 ת	Len	Mat	Lou		Thr	Pro		
				1111											1111	FIO		
															Dho	Dro		
	Asp		гуѕ	GIY	ьeu	Arg		Ата	тте	ser	GIU	_	ıyı	GIY	Phe	PIO		
343	a1	130	7. ~~	т1.	m	T	135	m	T	T	O	140	7	<b>01</b>	<b>-1</b> -	T		
		GIU	ASI	тте	TAL	-	val	Tyr	гуѕ	гÀ2	_	ьуѕ	arg	GTĀ	Ile			
	145	7	Met	7	7	150	<b>~</b> 7 -	<b>T7</b> -	<b>~</b> 1	TT 2 -	155	0	<b>3</b>	TT	777	160		
	vaı	Asn	мет	Asp		Asn	тте	тте	GIn		Tyr	ser	Asn	His	Val	Ala		
351	-1		-		165	~7	~~	_	_	170	_		~-		175	_		
	Phe	ьeu	Leu		Met	GLY	Glu	Leu		Gly	Lys	Ile	GIn		Ile	Leu		
355	_		_	180					185					190				
358	Lys	Glu	Leu															

Input Set : N:\SSLM\10535458.txt

```
359
            195
362 <210> SEQ ID NO: 8
363 <211> LENGTH: 1458
364 <212> TYPE: DNA
365 <213> ORGANISM: Homo sapiens
367 <400> SEQUENCE: 8
368 atgaaaaggt ctgtgcggct gctaaagaac gacccagtca acttgcagaa attctcttac
                                                                           60
370 actagtgagg atgaggcctg gaagacgtac ctagaaaacc cgttgacagc tgccacaaag
                                                                          120
372 gccatgatga gagtcaatgg agatgatgag agtgttgcgg ccttgagctt cctctatgat
                                                                          180
374 tactacatgt cgatgetett eccagatate etgaaaacet ecceggaace eccatgteca
                                                                          240
376 gaggactacc ccagcctcaa aagtgacttt gaatacaccc tgggctcccc caaagccatc
                                                                          300
378 cacatcaagt caggogagtc acccatggcc tacctcaaca aaqqccaqtt ctaccccqtc
                                                                          360
380 accetgegga ceceageagg tggcaaagge ettgeettgt cetecaacaa agtcaagagt
                                                                          420
382 gtggtgatgg ttgtcttcga caatgagaag gtcccagtag agcagctgcg cttctggaag
                                                                          480
384 cactggcatt cccggcaacc cactgccaag cagcgggtca ttgacgtggc tgactgcaaa
                                                                          540
386 gaaaacttca acactgtgga gcacattgag gaggtggcct ataatgcact gtcctttgtg
                                                                          600
388 tggaacgtga atgaagaggc caaggtgttc atcggcgtaa actgtctgag cacagacttt
                                                                          660
390 tcctcacaaa agggggtgaa gggtgtcccc ctgaacctgc agattgacac ctatgactgt
                                                                          720
392 ggcttgggca ctgagcgcct ggtacaccgt gctgtctgcc agatcaagat cttctgtgac
                                                                          780
394 aagggagetg agaggaagat gegegatgae gageggaage agtteeggag gaaggteaag
                                                                          840
396 tgccctgact ccagcaacag tggcgtcaag ggctgcctgc tgtcgggctt caggggcaat
                                                                          900
398 gagacgacct accttcggcc agagactgac ctggagacgc cacccgtgct gttcatcccc
                                                                          960
400 aatgtgcact tetecageet geageggtet ggagggagee teeageagee aggggeteet
                                                                         1020
402 ctcattttcc tgcgtgtgat ggaaaatgtc tttttcactt cattgcaggc agcccctcg
                                                                         1080
404 gcaggaccca gcagctccaa caggctgcct ctgaagcgta cctgctcgcc cttcactgag
                                                                         1140
406 gagtttgagc ctctgccctc caagcaggcc aaggaaggcg accttcagag agttctgctg
                                                                         1200
408 tatgtgcgga gggagactga ggaggtgttt gacgcgctca tgttgaagac cccagacctg
                                                                         1260
410 aaggggctga ggaatgcgat ctctgagaag tatgggttcc ctgaagagaa catttacaaa
                                                                         1320
412 gtctacaaga aatgcaagcg aggaatctta gtcaacatgg acaacaacat cattcagcat
                                                                         1380
414 tacagcaacc acgtcgcctt cctgctggac atgggggagc tggacggcaa aattcagatc
                                                                         1440
416 atccttaagg agctgtaa
                                                                         1458
419 <210> SEQ ID NO: 9
420 <211> LENGTH: 485
421 <212> TYPE: PRT
422 <213> ORGANISM: Homo sapiens
424 <400> SEQUENCE: 9
426 Met Lys Arg Ser Val Arg Leu Leu Lys Asn Asp Pro Val Asn Leu Gln
                                        10
430 Lys Phe Ser Tyr Thr Ser Glu Asp Glu Ala Trp Lys Thr Tyr Leu Glu
                                    25
                                                         30
434 Asn Pro Leu Thr Ala Ala Thr Lys Ala Met Met Arg Val Asn Gly Asp
                                40
438 Asp Glu Ser Val Ala Ala Leu Ser Phe Leu Tyr Asp Tyr Tyr Met Ser
442 Met Leu Phe Pro Asp Ile Leu Lys Thr Ser Pro Glu Pro Pro Cys Pro
443 65
                        70
446 Glu Asp Tyr Pro Ser Leu Lys Ser Asp Phe Glu Tyr Thr Leu Gly Ser
                                        90
450 Pro Lys Ala Ile His Ile Lys Ser Gly Glu Ser Pro Met Ala Tyr Leu
```

Input Set : N:\SSLM\10535458.txt

Output Set: N:\CRF4\07052006\J535458.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:17; N Pos. 63,195,259,263,347,367,389,459,464,483,505
Seg#:18; N Pos. 16,93
Seq#:20; N Pos. 1,6,13,15,20,21,28,29,34,52,53,171,228,255,308,364,415,425
Seq#:20; N Pos. 434,1171,1212,1220,1224
Seq#:22; N Pos. 3,8,703,744,754,759,777,784,805,824,831,850,861,864,875,879
Seq#:22; N Pos. 884,886,887,892,899,900,905,916,919,931,940,943,946,961,966
Seq#:22; N Pos. 968,978,991,994,1004,1016,1017,1032,1033,1035,1041,1051
Seq#:22; N Pos. 1057,1060,1064,1065,1081,1098,1108,1112,1121,1125,1132,1141
Seq#:22; N Pos. 1142,1145,1151,1159,1163,1168,1176,1190
Seq#:23; N Pos. 2,3,6,772,820,832,840,857,859,902,920,932,941,953,978,980
Seq#:23; N Pos. 989,991,1011,1018,1054,1057,1063,1064,1095,1106,1109,1110
Seq#:23; N Pos. 1111,1117,1119,1120,1124,1137,1139,1143,1149,1157,1159,1160
Seq#:23; N Pos. 1162,1165,1170,1171,1176,1178,1180,1189,1199,1200,1207,1219
Seq#:23; N Pos. 1224,1228
Seq#:27; N Pos. 4,5,7,8,11,12,13,14,15,16,18,19,20,21,22,27,35,38,74,666
Seq#:27; N Pos. 731,767,770,777,788,803,806,817,836,853,856,858,862,863,866
Seq#:27; N Pos. 877,879,890,899,902,903,906,923,924,940,941,943,952,956,959
Seq#:27; N Pos. 960,972,976,978,982,983,992,996,1002,1011,1014,1022,1033
Seq#:27; N Pos. 1043,1064,1072,1082,1084,1090,1091,1092,1095,1101,1106,1107
Seq#:27; N Pos. 1108,1116,1119,1124,1128,1138,1139,1143,1147,1152,1160,1164
Seq#:27; N Pos. 1172,1177,1179,1194,1195,1196,1209,1219
Seq#:28; N Pos. 2,3,4,5,6,8,46,57,60,75,645,667,677,682,740,750,757,758,763
Seq#:28; N Pos. 791,804,807,828,830,841,849,859,866,867,868,873,879,891,913
Seq#:28; N Pos. 926,930,949,958,983,987,995,997,1006,1027,1037,1042,1045
Seq#:28; N Pos. 1046,1049,1057,1062,1064,1074,1080,1083,1090,1102,1108,1110
Seq#:28; N Pos. 1121,1134,1135,1144,1151,1155,1157,1175,1178,1179,1183,1191
Seq#:28; N Pos. 1193,1195,1196,1197,1206,1210,1216,1220,1221,1223
Seq#:29; N Pos. 7,566,662,690,692,757,776,805,826,829,840,868,874,883,889
Seq#:29; N Pos. 891,896,898,910,913,921,926,927,929,936,937,948,953,955,958
Seq#:29; N Pos. 964,971,974,985,988,1007,1027,1032,1033,1036,1056,1062,1081
Seg#:29; N Pos. 1088,1093,1103,1105,1112
Seq#:30; N Pos. 17,39,733,748,819,831,850,866,867,880,885,888,920,923,924
Seq#:30; N Pos. 936,938,947,950,958,963,965,983,992,993,997,1001,1009,1017
Seq#:30; N Pos. 1025,1026,1028,1040,1042,1055,1057,1058
Seq#:36; N Pos. 268,290,295,324,325
Seq#:41; N Pos. 175,194,292,297,302
Seq#:46; N Pos. 52,84,119,215,216
Seq#:48; N Pos. 45,206
```

## Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:56,57,58,59,60,61,62,63,64,65,73

VERIFICATION SUMMARYDATE: 07/05/2006PATENT APPLICATION: US/10/535,458TIME: 08:51:02

Input Set : N:\SSLM\10535458.txt

Output Set: N:\CRF4\07052006\J535458.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:1075 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:60 M:341 Repeated in SeqNo=17 L:1104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0 M:341 Repeated in SeqNo=18 L:1166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0 M:341 Repeated in SeqNo=20 L:1240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0 M:341 Repeated in SeqNo=22 L:1295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0 M:341 Repeated in SeqNo=23 L:1709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0 M:341 Repeated in SeqNo=27 L:1764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0 M:341 Repeated in SeqNo=28 L:1819 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0 M:341 Repeated in SeqNo=29 L:1870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0 M:341 Repeated in SeqNo=30 L:2658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:240 M:341 Repeated in SeqNo=36 L:3079 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:120 M:341 Repeated in SeqNo=41 L:3448 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0 M:341 Repeated in SeqNo=46 L:3500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0 M:341 Repeated in SeqNo=48